REMARKS

The final Office Action dated January 19, 2010, has been carefully reviewed and the following remarks are responsive thereto. Claims 18, 25-27 have been amended.

With reference to "each of said route service devices and each of said soft switch control devices form a nodes of the system, and the nodes are networked in a layered form" in claim 25, the steps recited in line 14 of page 12 to line 18 of page 14 of the specification, and the modules recited in line 21 of page 14 to line 2 of page 16 of the specification, it can be seen that no new matter has been added.

Reconsideration and allowance are respectfully requested.

Claim Rejections - 35 USC§103

Claims 18-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pershan et al. (US 6865266 B1) in view of Elliott et al. (US 20040022237 A1). The applicants respectfully traverse this rejection for the reasons stated herein below.

Claim 18

Independent claim 18 recites:

"A method for implementing call routing, to be used in a next generation network using soft switch control device(s) as core control device(s), comprising implementing call routing by route service devices, wherein the route service devices and the soft switch control devices are networked in a layered way,

wherein implementing call routing by the route service devices comprises the following steps of:

(a) when a route of a user changing upon a user route change, a soft switch control device that the user moves to or moves out of reporting a changed route information related to the user to a route service device(s) at father node(s) of the one of the soft switch control devices, the changed route information including user characteristics information, report user node information and route operation type;

(b) the route service device(s) that received the reported changed route information looking up a record of a user to be registered from a route information database, and registering a route record of the user to the route information database according to the reported changed route information and content of the record of the user;

(c) when a route information of the user reflects a change between the route service device that finished registration a local node and its father node, the route service device(s) that finished registration broadcasting the route information reflecting the change to a route service device(s) at father node(s) of the route service device(s) that finished registration;

(d) the route service device(s) that received the broadcasted route information registering and broadcasting the received broadcasted route information according to the same method as the route service device(s) that received the reported changed route information;

(e) when calling across domains, a soft switch control device to which the calling belongs initiating an inquiry to route service device(s) at father node(s) of the soft switch control device to which the calling belongs;

(f) the route service device(s) that received a request of the inquiry looking up a route record of a user to be looked up from the route information database, if an inquiring result of the route of the user or an inquiring result indicates that the user does not exist is obtained, performing step (h), otherwise, performing step (g);

(g) the route service device(s) that received the request of the inquiry continuing an inquiry to a node in said route record, if there is no route record, continuing an inquiry to its father node(s), and returning to step (f); and

(h) the route service device that received the request of the inquiry returning the inquiring result to the node that initiated the inquiry, any node that receives the inquiring result continuing to return the inquiring result, until returning to the soft switch control device which first initiated the inquiry."

First, claim 18 of the present invention recites "a method for implementing call routing, to be used **in a next generation network**". That is, the call routing is carried out in a next generation network. Therefore, it can be seen that the calling node and the called node are all in the next generation network, and also the soft switch control devices and the route service devices are all in the same next generation network (Please refer to line 26 in page 10 to line 5 in page 11 of the specification and figure 1 of the present invention.). In addition, one technical problem to be solved by the method of claim 18 of the present invention is to implementing call routing **in a next generation network.**

Neither Pershan nor Elliott, either separately or in combination, teaches or suggests the above technical feature in claim 18 of the present invention. Instead, the method disclosed in Pershan is for "transitioning from use of the PSTN to (VOIP) networks to provide telephone service" (please refer to lines 29-30 in column 4 in Pershan), more specifically, the method disclosed in Pershan is for "allowing telephone numbers to be ported to a (VOIP) network" (please

refer to lines 35-36 in column 4 in Pershan). Therefore, it can be seen that the method disclosed in Pershan is carried out *between at least two networks*, i.e. the PSTN and (VOIP) network (Please refer to figure 1 in Pershan.). So, Pershan does not teach or suggest implementing call routing **in a next generation network.** Elliott also fails to teach or suggest the above feature of claim 18 of the present invention.

Second, claim 18 of the present invention recites "the route service devices and the soft switch control devices are **networked in a layered way**". Neither Pershan nor Elliott, either separately or in combination, teaches or suggests the above technical feature in claim 18 of the present invention. With reference to figure 1 in Pershan, it can be seen that the soft switch and the server in Pershan are not networked in a layered way. Therefore, Pershan does not teach or suggest that "the route service devices and the soft switch control devices are **networked in a layered way**". With reference to figure 1 in Elliott, it can be seen that the soft switch and the gateway are not networked in a layered way. Therefore, Elliott also fails to teach or suggest the above feature of claim 18 of the present invention.

Third, claim 18 of the present invention recites "**when a route of a user changing**, a soft switch control device that the user moves to or moves out of **reporting a changed route information related to the user** to a route service device". That is, **when a route of a user changing**, the soft switch control device will **report a changed route information related to the user** to a route service device, irrespective of whether a call is initiated. More specially, **when a route of a user changing**, the route information related to the user will be updated via the related soft switch control devices and the related route service devices.

Neither Pershan nor Elliott, either separately or in combination, teaches or suggests the above technical features in claim 18 of the present invention. The Office Action asserts that Pershan

discloses "The trunk call agent 136 includes control and routing information associated with various call trunks while the line call agent 138 includes routing and service information associated with individual user lines, e.g. telephones 106, for which soft switch 130 is responsible for, e.g., routing and billing functions. Media/proxy servers 132, 156 interact with the soft switches 130 and route IP telephone calls under direction of the soft switches 130, 152. Thus, IP calls and/or call related data are transmitted through these servers to their respective destinations. Soft switches 130, 152 provide *calling and called information* to the servers, then the servers determine routing and move the call to its ultimate destination, e.g., they determine the routing instructions for called numbers. (Please refer to lines 5-19 in column 10 in Pershan.)", and accordingly Pershan discloses "**when a route of a user changing**". Applicant respectfully disagrees.

On the one hand, in the above disclosure in Pershan, there is no concept of "**when a route of a user changing**". Instead, the context for the above disclosure in Pershan is: there is "*an originating PSTN call*" or "*IP call*" (Please refer to lines 58-66 in column 4 in Pershan), that is, *a call is initiated*. The operations in the above disclosure in Pershan are performed when a call is initiated, not when a route of a user is changed. On the other hand, in the above disclosure in Pershan, there is no concept of "**reporting a changed route information related to the user**". Instead, soft switches 130, 152 in Pershan provide *calling and called information* to the servers. And there is no evidence in Pershan that can be used to prove *calling and called information* includes **a changed route information related to the user**. Therefore, in the above disclosure in Pershan the soft switches 130, 152 provide *calling and called information* to the servers *during call processing*. Pershan does **not** teach or suggest "**when a route of a user changing**, a soft switch control device that the user moves to or moves out of **reporting a changed route information related to the user**". Elliott also fails to teach or suggest the above features of claim 18 of the present invention.

In addition, claim 18 of the present invention recites "the changed route information including user characteristics information, **report node information** and route operation type". Specially, **report node information** refers to information about the node reporting route information, and the report node may be a soft switch control device or a route service device (Please refer to lines 17-18 in page 12 in the specification of the present invention.). Neither Pershan nor Elliott, either separately or in combination, teaches or suggests the above technical feature in claim 18 of the present invention. Pershan discloses "IP calls and/or call related data are transmitted through these servers to their respective destinations. Soft switches 130, 152 provide *calling and called information* to the servers, then the servers determine routing and move the call to its ultimate destination" (please refer to lines 14-18 in column 10 in Pershan). It can be seen that *calling and called information* disclosed by Pershan does not include **report node information**, that is, *calling and called information* disclosed by Pershan does not include information about report node, which may be a soft switch control device or a route service device. Therefore, Pershan does **not** teach or suggest "**report node information**". Elliott also fails to teach or suggest the above feature of claim 18 of the present invention.

Accordingly, claim 18 is allowable for at least the above reasons.

Claims 19-24

Claims 19-24 are dependent on claim 18 and are thus allowable for at least the same reasons as claim 18.

Claim 25

Independent claim 25 defines:

"A system for implementing call routing, to be used in a next generation network using soft switch control devices as core control devices, comprising a plurality of soft switch control devices with users,

wherein, the system further comprises a plurality of route service devices, each of said route service devices and each of said soft switch control devices form nodes of the system, and the nodes

are networked in a layered form, each sub-node has at least a father node, and each father node has at least a sub-node, said soft switch control devices are nodes at the lowest layer, and said route service devices have sub-nodes, wherein:

said soft switch devices are configured for reporting changed route information to the route service device at a father node when a route of its user is changed, and initiating a route inquiry to the route service device at the father node when its user calls across domains; and

said route service devices are configured for registering the reported information, performing adding, deleting and updating of route record in a route information database of the user; broadcasting the changed route information to related nodes, performing inquiry after receiving the inquiry request, and returning inquiring result to the node initiating the inquiry."

The applicants respectfully submit that independent claim 25 is allowable for at least similar reasons as mentioned above in claim 18.

Accordingly, claim 25 is allowable for at least these reasons.

Claim 26

Claim 26 is dependent on claim 25 and is thus allowable for at least the same reasons as claim 25.

Claim 27

Independent claim 27 defines:

"A route service device to be used in a next generation network using soft switch control devices as core control devices, wherein the route service device and the soft switch control devices are networked in a layered way, the route service device comprising:

a route information database module,

a route registration module,

a route broadcast module, and

a route inquiry module,

wherein the route information database module is configured for storing a route record of a user, inputting the route record of the user, and providing an interface for accessing the route record of the user;

wherein the route registration module is configured for receiving a route information reported by the soft switch control devices or forwarded by the route broadcast module, looking up a record of a user to be registered from the route information database, and registering the route record of the user to the route information database according to the reported route information and content of the user record;

wherein the route broadcast module is configured for receiving a broadcasted route information and sending the broadcasted route information to the route registration module, and when a route information of a user reflects a change between a local node and its father node, broadcasting the route information of the user reflecting the change to its father node; and

wherein the route inquiry module is configured for receiving or sending an inquiry request, looking up the a record of a user to be inquired from the route information database, returning an inquiring result to a node requesting the inquiry upon finding a route of the user, upon determining that there is no user or upon receiving an inquiring result provided by other nodes, otherwise, continuing an inquiry to the node in the route record, and if there is no route record, then continuing an inquiry to its father node."

The applicants respectfully submit that independent claim 27 is allowable for at least similar reasons as mentioned above in claim 18.

Accordingly, claim 27 is allowable for at least these reasons.

Claims 28-33

Claims 28-33 are dependent on claim 27 directly or indirectly and are thus allowable for at least the same reasons as claim 27.

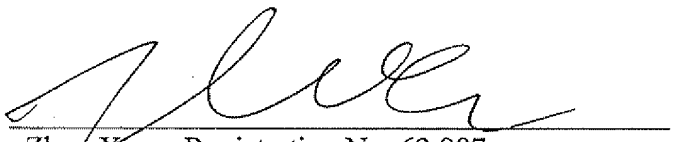
CONCLUSION

The Applicants believe they have responded to each matter raised by the Examiner. Allowance of the claims is respectfully solicited. It is believed that the present patent application, after the above amendments and statement of opinions, has overcome all the defects pointed out by the Examiner and is in conformity with the relevant provisions, so it should be granted patent rights. The Applicants expect early granting of patent right for this application. If there is still a problem that the Examiner believes is not overcome by the above amendments and statement of opinions, please give the Applicants another chance to make amendments and further clarification or explanation or observation.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact undersigned at the telephone number of the undersigned below.

Respectfully submitted,

Kile Goekjian Reed & McManus, PLLC

By 

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